

Question:

Provide a record cite for the planned change to CRIS billing on July 1, 2002.

Answer:

The cite to the planned change to CRIS billing is Appendix O, volume 2, 1192.doc (O_2_1192.doc). It is attached.

Qwest notified the CLEC community via the attached notification on April 19, 2002 that CRIS Summary bills would be available in BOS format for UNE-P on July 1, 2002. The capability was in fact added on July 1, 2002.

We have also included a May 16, 2002 notification, the Final Technical Specifications, for the planned change to the BOS format, and the July 1, 2002 notification stating that this capability has been released in to production.

In addition, the availability of CRIS Summary Bills in BOS format for UNE-P was referenced in our filing under Checklist Item 2: OSS -- Lynn M. V. Notarianni and Christie Doherty, paragraph 498, which is also attached.

Announcement Date:	April 19, 2002
Effective Date:	Immediately
Document Number:	SYST.04.19.02.F.04033.IABS R85 DftTechSpec
Notification Category:	Systems Notification
Target Audience:	CLECs, Resellers
Subject:	IABS Release 85 – Draft Technical Specifications
Associated CR #:	SCR090601

Summary of Change:

Qwest will be supplying an additional option to have your UNE P bill and CSR data provided in the CABS/BOS format.

Qwest will be following TRG, CABS/BOS recommendations for implementation and population of the CABS/BOS records. The BOS Version being used at production will be Version 37. Information related to the CABS/BOS record format can be obtained from Telcordia at <http://www.telcordia.com/>

Comment Cycle:

Qwest is making this change to conform to Industry Standards. Therefore, there will be no documentation posted to the document review site. Please submit any comments on the timeline presented on this notification to Qwest via the following link: <http://www.qwest.com/wholesale/cmp/comment.html>. Fill in all required fields and be sure to reference the Notification Number listed above.

Timeline:

CLEC Comment Cycle begins	Details for providing comments are provided above	Available April 19, 2002
Qwest/CLEC Walk Through	Walk Through to provide an informational overview and answer CLEC questions. All relevant Qwest SMEs will be in attendance and CLEC SMEs are encouraged to participate.	1:00 -3:00 P.M. MDT, May 1, 2002 Conference Bridge: 888-725-8686 Conference ID : 1957586
CLEC Comment Cycle ends		5:00 p.m. MT, May 7, 2002
Final Notification issued		Available May 17, 2002
CLEC Testing Window Begins	Qwest will provide a test file and Differences List 30 days prior to the production installation.	Available June 1, 2002
Targeted Production Date		Available July 1, 2002

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such interconnection agreement.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process.

Prior to any modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

AH, 2-A

Announcement Date: May 16, 2002
Effective Date: May 17, 2002

Notification Number: SYST.05.16.02.F.04058.IABS_Final_TechSpec
Notification Category: Systems Notification
Target Audience: CLECs, Resellers

Subject: CMP – Systems: IABS Release 85– Final Technical Specifications

Associated CR # or System Name and Number: SCR090601-01

On May 17, 2002, Qwest will post the Final Technical Specifications to allow Customers the option to have their UNE P bill and CSR data provided in the CABS/BOS format targeted for implementation on July 1, 2002. Details of this option will be posted to the Qwest Wholesale Document Review site.

Summary of Change:

Qwest will be following TRG, CABS/BOS recommendations for implementation and population of the CABS/BOS records. The BOS Version being used at production will be Version 37. Information related to the CABS/BOS record format can be obtained from Telcordia at <http://www.telcordia.com/>.

Final Joint Test Plan:

Test files will be available on June 1, 2002. A test file will be sent provided a CLEC has NDM capability with Qwest today. If a CLEC does not currently have NDM capability today, then it is possible that it could take up to six weeks to establish the connectivity with Qwest. For information regarding Interactive testing with Qwest please contact Catriona Dowling @ 303-624-0528 or e-mail cdowlin@qwest.com.

Comment Response:

The Qwest Response to CLEC comments on the original notification and walk through will be posted on May 17, 2002 to the Document Review web site under the heading of "Qwest Responses to CLEC Comments on Documents in Review." This response will be listed within the Systems Documents section. The URL is <http://www.qwest.com/wholesale/cmp/review.html>.

If you have any questions on this subject, please submit comments though the following link: <http://www.qwest.com/wholesale/cmp/comment.html>.

Timeline:

Final Technical Specifications	Includes Qwest response to comments and the CABS/BOS Format for UNE P presentation	Available May 17, 2002
CLEC Testing Window Begins	Qwest will provide a test file and a differences list 30 days prior to the implementation date.	Available June 1, 2002
Targeted Production Date		Available July 1, 2002

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Q west and the CLEC party.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.



Announcement Date: July 1, 2002
Effective Date: Immediately

Notification Number: SYST.07.01.02.F.04099.IABS_FinalRelease
Notification Category: Systems Notification
Target Audience: CLECs, Resellers

Subject: CMP – Systems– Final Notification for IABS
Release 85

Associated CR # or System Name and Number SCR 090601-01

In accordance with industry standards, Qwest is providing Wholesale Customers the option to have their UNE P bill and CSR data provided in the CABS/BOS format. This option (SCR 090601-01) has been released into Production effective July 1, 2002.

Summary of Change:

Qwest will be following Technical Review Group (TRG), CABS/BOS recommendations for implementation and population of the CABS/BOS records. The BOS Version being used at production will be Version 37. Information related to the CABS/BOS record format can be obtained from Telcordia at <http://www.telcordia.com/>.

Test Plan:

A test file will be sent provided a CLEC has NDM capability with Qwest today. If a CLEC does not currently have NDM capability today, it could take up to six weeks to establish the connectivity with Qwest. For information regarding Interactive testing with Qwest, please contact Catriona Dowling on 303-624-0528 or e-mail cdowlin@qwest.com.

If you have any questions on this subject, please submit comments through the following link:
<http://www.qwest.com/wholesale/cmp/comment.html>.

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

A++ 2-C

498. CLECs may choose the following electronic formats and transmission methods for receipt of the CRIS Summary Bill: ⁷⁰²

- EDI format via
 - ❖ VAN;
 - ❖ NDM, using a dedicated circuit or dial-up access;
 - ❖ FTP; or
 - ❖ Web access;
- ASCII format via
 - ❖ Web access;
 - ❖ CD ROM; ⁷⁰³ or
 - ❖ Diskette;
- BOS format for UNE-P via
 - ❖ NDM;
 - ❖ Web access;
 - ❖ Diskette; or
 - ❖ BDT.

The EDI format is compatible with commercially available analysis software. The ASCII format is easily loaded into many spreadsheet or database software packages for analysis.

⁷⁰² See Billing – Customer Records and Information System (CRIS) – V10.0, Description, Bill Formats, *available at* www.qwest.com/wholesale/clecs/cris.html. See Exh. CLD-OSS-30 (CRIS Screen Shot).

⁷⁰³ Qwest makes CRIS bills available on ASCII format via CD ROM to any CLEC receiving bills over \$10,000 in charges on a single product line. See *id.*

Question:

Provide a summary of DUF test history.

Answer:

Summary of DUF Test History

I. KPMG DUF Test 1 & 2

Stopped due to test bed problems. No test calls were actually made.

II. KPMG DUF Test 3: June 11 – June 29, 2001

Qwest Billing System Changes:

- Created and subsequently enhanced a Pending Order File (“POF”) process to allow usage to be held when the involved TN converts from one LEC to another;
- Fixed occasional creation of duplicate records; and
- Correctly formatted credit records on the DUF.

III. KPMG DUF Test 4: October 28 – November 1, 2001

Qwest Billing System Changes:

- Fixed POF processing related to certain measured service records;
- Augmented Eastern Region toll guide data;
- Modified 8XX business rules to ensure DUF records are correctly populated;
- Changed processing to correctly identify EAS calls as local on the DUF; correctly populate the rate class field on DUF records; and fixed problem related to the distance calculation of local measured service calls; and
- Fixed the message investigation process to ensure records were handled correctly.

IV. KPMG DUF Test 5: January 7 – January 11, 2002

Qwest passed Test 5 in its Eastern and Western Regions.

Qwest Billing System Changes to Central Region:

- Fixed condition specific to C-order conversions to UNE-P when the C-order posted in CRIS on a Thursday or Friday;
- Amended the POF process for operator-assisted local calls to assure only a local DUF record was created; and
- Fixed DUF processing for alternately-billed calls originating from a UNE-P line.

V. KPMG DUF Test 6: March 11 – March 15, 2002

Qwest passed Test 6.

Cap Gemini supplemental DUF testing took place January - April 2002. Qwest passed this DUF test as reported in its Final Report of the Qwest OSS Test -- Section 2.4.5, Revised April 24, 2002 (attached).



Final Report of the Qwest OSS Test – Section 2.4.5, Revised April 24, 2002

**April 24, 2002
Prepared For:
Arizona Corporation Commission**

**Cap Gemini Telecom Media & Networks U.S., Inc.
One Panorama Center
7701 Las Colinas Ridge
Suite 300
Irving, TX 75063**

2.4.5 Supplemental DUF Evaluation

Scope

CGE&Y conducted a controlled supplemental test of the accuracy and timeliness of the provisioning of Daily Usage File (DUF) records in Arizona. This supplemental effort was to ensure that no DUF issues existed in Arizona after DUF processing updates were made by Qwest that affected their entire operating area. These system updates occurred from September 2001 through December 2001.

CGE&Y's Supplemental DUF Evaluation was conducted from January through April 2002. CGE&Y generated test calls during and after account migrations and then reviewed the DUF records received. As a result of this review, four IWOs were issued (AZIWO1215, AZIWO2127, AZIWO2128 and AZIWO2129). CGE&Y received Qwest's responses to the IWOs, indicating that system fixes had been implemented on February 7, 18 and March 28; and a process change had been implemented on March 22, 2002. CGE&Y retested and closed AZIWO2127, AZIWO2128, AZIWO1215 and AZIWO2129.

Process

Order and Call Generation

CGE&Y generated order scripts for the initial test and retest. The order scripts were used by the Pseudo-CLEC to issue LSRs that migrated 12 CGE&Y and 3 HP local retail employee lines to wholesale HPC accounts.¹ For the retest, only the 12 CGE&Y accounts were used. CGE&Y and HP accounts were selected to closely control adherence to the test call scripts.

The test calls for the initial test were conducted during the period of January 22 through January 31, 2002.¹ The retest period was March 13, 2002 through April 2, 2002.² The types of calls made to generate both access and usage records included:

- InterLATA
- IntraLATA toll
- 900/976 Calls

¹ Test Call Logs for the initial test are located on CGE&Y Archive CD: Supplemental DUF Evaluation, Supplemental DUF Evaluation Update.

² Test Call Logs for the Retest are located on CGE&Y Archive CD: Supplemental DUF Evaluation Retest.

- 8xx (WATS)
- Local Directory Assistance
- Local Directory Assistance Connect
- Toll Directory Assistance
- Toll Credit Request
- Usage sensitive CLASS features
- Terminating InterLATA
- Terminating IntraLATA toll
- Local Measured Service
- Verify InterLATA Carrier
- Verify IntraLATA Carrier

Pseudo-CLEC DUF Record Processing

As discussed in Section 2.4.3 above, the Pseudo-CLEC received DUFs from Qwest for test accounts. The Pseudo-CLEC process for receiving DUFs was implemented in June 2000 and was based on the Pseudo-CLEC's understanding that "U S WEST (Qwest) uses the EMI standard for the Daily Usage File." At that time, Qwest had implemented EMI Version 17, dated April 2000. The Pseudo-CLEC implemented the process of receiving the DUFs via NDM on a dedicated T-1 connection with Qwest. For this implementation, the Pseudo-CLEC incorporated Qwest's variations to the EMI standards for Version 17 that Qwest detailed in their document, "Usage Exception Matrix.doc." This document was provided to the Pseudo-CLEC via the Account Management process.

Upon receipt of each DUF, the Pseudo-CLEC performed the following standard types of validations on the file:

1. File edits
2. Header edits
3. Trailer edits
4. Duplicate Check edits
5. Detail edits
6. Timeliness edits

In August 2001, Qwest upgraded their DUF process to EMI Version 18, dated July 2001. With Qwest's implementation of EMI Version 18, ADUF (access) records, along with ODUF records were received by the Pseudo-CLEC. Documentation of the DUF process is provided at the Qwest website (<http://www.qwest.com/wholesale/clecs/duf.html>).

Under EMI Version 18, the Pseudo-CLEC performed basic validation of pack header and trailer records according to EMI standards for both the

ADUF and ODUF records before converting to a spreadsheet for CGE&Y analysis. These spreadsheets for the initial test and the retest are contained in the CGE&Y document, Combined Call Logs and DUF File.xls.³

Evaluation Process

CGE&Y's evaluation of the DUF records for the initial test included DUFs received from January 25, 2002 through February 16, 2002. This evaluation analyzed only planned test calls and did not include any casual calls that the caller may have made. During the retest, the DUFs reviewed were received from March 13, 2002 through April 5, 2002 and the evaluation analyzed all originating and terminating calls for the test accounts as logged by the test caller.

During the audit of DUF records, CGE&Y also:

1. Verified the accuracy of call types in the Record ID field.
2. Verified the date and time of the beginning and the end of the calls.
3. Verified the jurisdiction (Settlement Code and LATA Indicator) where applicable.
4. Verified the applicable carrier identification code (CIC) on access records.
5. Verified the Indicator 4 field value was populated correctly according to the account type (Resale or UNE-P).
6. Verified the direction of the call in the Originating / Terminating field.
7. Verified that no access usage is reported for Resale accounts.
8. Verified that the execution of usage sensitive class services generated DUF records.
9. Verified that the correct Operating Company Name (OCN) is populated on access records and is in the correct field on UNE-P accounts.
10. Identified missing DUF records.
11. Verified that all DUF records in the retest call period were generated by the test accounts.
12. Verified that DUF files had unique invoice sequence numbers.

Results

Test results showing DUF records received by call type for the initial test and the retests are shown in Table 2.4.5a below. Confidential call logs and the associated DUFs, LSRs and CSRs are available separately.⁴

³ CGE&Y Archive CDs: Supplemental DUF Evaluation, Supplemental DUF Evaluation Update, Supplemental DUF Evaluation Retest.

⁴ CGE&Y Archive CDs: Supplemental DUF Evaluation, Supplemental DUF Evaluation Update, Supplemental DUF Evaluation Retest.

Table 2.4.5a - DUF Records Received by Call Type

Test Call Type	Initial Test					Retest 1					Retest 2				
	OCUP Expected	OCUP Found	ACUP Expected	ACUP Found		OCUP Expected	OCUP Found	ACUP Expected	ACUP Found		OCUP Expected	OCUP Found	ACUP Expected	ACUP Found	
In-State Interstate Long Distance Call Completion	0	0	33	18	55%	0	0	42	42	100%	0	0	0	0	0
In-State Intrastate Long Distance Call Completion	84	77	45	14	71%	45	45	28	28	100%	0	0	0	0	0
Terminating Interstate Call	0	0	23	4	17%	0	0	73	73	100%	0	0	0	0	0
Terminating Intrastate Call * Note 3	0	0	32	0	0%	0	0	52	17	33%	0	0	15	11	73%
Local Directory Assistance 1-411	87	86	0	0	99%	54	54	0	0	100%	0	0	0	0	0
Toll Directory Assistance	0	0	32	17	53%	0	0	30	30	100%	0	0	0	0	0
800 WATS Number	0	0	51	38	75%	0	0	31	31	100%	0	0	0	0	0
800 Blocking	0	0	16	3	19%	0	0	31	31	100%	0	0	0	0	0
Verify Long Distance Carrier	0	0	47	20	43%	0	0	27	27	100%	0	0	0	0	0
Verify Intrastate Long Distance Carrier	0	0	0	0	0%	0	0	0	0	0%	0	0	0	0	0
Directory Assistance Connection (Call completion)	0	0	43	28	65%	6	6	5	5	100%	0	0	0	0	0
Usage Sensitive Call/Last Call Return * Note 1	0	0	0	0	0%	50	50	0	0	100%	0	0	0	0	0
Usage Sensitive Call/Last Continuous Redial * Note 1	0	0	0	0	0%	50	50	0	0	100%	0	0	0	0	0
Toll Credit Request * Note 2	0	0	0	0	0%	11	11	0	0	100%	0	0	0	0	0
Local Call * Note 2 & 3	0	0	0	0	0%	72	0	0	0	0%	19	19	0	0	100%
Total	171	163	322	142	62%	288	216	319	284	82%	19	19	15	11	88%

OCUP Success: 65%
ACUP Success: 44%

OCUP Success: 75%
ACUP Success: 52%

OCUP Success: 100%
ACUP Success: 73%

- * Note 1 – Retest 1 only. For Initial Test, accounts had monthly subscription.
- * Note 2 – Retest 1 only. Not performed on Initial Test.
- * Note 3 - Retest 2 - Two test call types only.

Test results for the initial test for each test account are shown in Table 2.4.5b and Table 2.4.5c below.

Table 2.4.5b - Initial Test Results by Test Account

Test Number	Connected To	Last Test Date	First Test Date	Last Test Date	Test Calls		Date of ODF File When Usage First & Last Received (Note 1)				Received Date of First Usage Received in ODF File	
					Begin	End	First ODF	Last ODF	First ADUF	Last ADUF	Expected	Actual
TA 01	Resale	1/22/02	1/24/02	1/25/02	1/22/02	1/30/02	1/30/02	2/1/02	N/A	N/A	1/25/02	1/25/02
TA 02	Resale	1/22/02	1/25/02	1/26/02	1/22/02	1/30/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/28/02
TA 03	Resale	1/22/02	1/25/02	1/26/02	1/22/02	1/30/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/26/02
TA 04	Resale	1/22/02	1/25/02	1/26/02	1/22/02	1/31/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/27/02
TA 05	Resale	1/22/02	1/25/02	1/26/02	1/28/02	1/30/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/28/02
TA 06	Resale	1/22/02	1/25/02	1/26/02	1/22/02	1/29/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/27/02
TA 07	Resale	1/22/02	1/25/02	1/26/02	1/22/02	1/31/02	2/5/02	2/5/02	N/A	N/A	1/26/02	1/28/02
TA 08	UHF	1/22/02	1/25/02	1/26/02	1/23/02	1/30/02	2/7/02	2/11/02	2/8/02	2/11/02	1/26/02	1/26/02
TA 09	UHF	1/22/02	1/25/02	1/28/02	1/23/02	1/29/02	2/6/02	2/6/02	2/6/02	2/6/02	1/26/02	1/28/02
TA 10	UHF	1/22/02	1/25/02	1/26/02	1/29/02	1/31/02	2/7/02	2/11/02	2/8/02	2/11/02	1/26/02	1/28/02
TA 11	UHF	1/22/02	1/25/02	1/26/02	1/22/02	1/31/02	2/7/02	2/11/02	2/8/02	2/11/02	1/26/02	1/27/02
TA 12	UHF	1/22/02	1/25/02	1/26/02	1/23/02	1/30/02	2/7/02	2/11/02	2/8/02	2/11/02	1/26/02	1/28/02
TA 13	UHF	1/22/02	1/25/02	1/26/02	1/23/02	1/31/02	2/6/02	2/6/02	2/6/02	2/6/02	1/26/02	1/28/02
TA 14	UHF	1/22/02	1/25/02	1/26/02	1/25/02	1/30/02	2/7/02	2/11/02	2/8/02	2/11/02	1/26/02	1/28/02
TA 15	UHF	1/22/02	1/25/02	1/26/02	1/23/02	1/30/02	2/12/02	2/14/02	2/13/02	2/14/02	1/26/02	1/27/02

*Note 1 - Per Data Request 264 response, first usage files delayed 4 days due to monthly bill pull and 3 days due to standard CRIS pending order hold period.

Table 2.4.5c - Initial Test Results by Test Account

Test Number	Connected To	Test Call Analysis						% of Success
		Calls Made	Residual Expected	ODF Expected	ODF Found	ADUF Expected	ADUF Found	
TA 01	Resale	134	104	30	30	0	0	100%
TA 02	Resale	80	69	11	11	0	0	100%
TA 03	Resale	57	53	4	4	0	0	100%
TA 04	Resale	127	116	11	11	0	0	100%
TA 05	Resale	56	47	9	9	0	0	100%
TA 06	Resale	73	65	8	8	0	0	100%
TA 07	Resale	108	97	11	11	0	0	100%
TA 08	UHF	48	21	6	6	24	14	67%
TA 09	UHF	106	71	8	8	31	8	41%
TA 10	UHF	49	10	8	8	35	0	18%
TA 11	UHF	87	47	9	9	35	15	55%
TA 12	UHF	63	21	12	10	37	9	39%
TA 13	UHF	97	36	13	13	54	14	40%
TA 14	UHF	63	23	10	5	35	12	38%
TA 15	UHF	149	68	21	20	71	70	98%
Totals:		ODF	68	174	163	122	403	81%

ODF Success	100%
ADUF Success	100%

Resale Success	100%
UHF Success	80%

Initial Test Findings:

- CGE&Y opened AZIWO2127 because 92 ADUF records were not received as identified in Qwest's response to Data Request 264.⁴ The system fix for this IWO was retested.
- CGE&Y opened AZIWO2128 because 41 WATS DUF records were not received as identified in Qwest's response to Data Request 264.⁴ The system fix for this IWO was retested.
- CGE&Y expected to receive 171 ODUF records and 322 ADUF records from the test calls. The overall success rate for DUF records received was 62%; 95% for ODUF records and 44% for ADUF records during this test period. CGE&Y opened AZIWO2129 because the volume of expected DUF records received was lower than anticipated. This IWO was re-evaluated in the retest.
- No DUF records were found for calls placed on or prior to the SOC when the account was still retail, as expected.
- All DUF files had unique invoice sequence numbers, as expected.
- Qwest immediately applied a system fix when the issue with an order posting to CRIS on a Friday concurrent with held access usage was identified (AZIWO2127).
- Qwest immediately applied a system fix when the issue with dropped WATS records was identified (AZIWO2128).
- For one test account, 120 usage records were delayed 22 days after the conversion date due to post order completion error correction.
- Inaccurate Indicator 4 – For 24 records the Indicator 4 value was 6 and should have been 7. CGE&Y opened AZIWO1215 for this error. Per Qwest's response, this error was associated with the issue that caused AZIWO2127. AZIWO1215 was retested.
- All DUF records had accurate start and end times compared to the test call logs.
- During the initial test it was found that 73% of the DUF records received had the correct Indicator 4 value.

⁴ CGE&Y Archive CD: Supplemental DUF Evaluation.

Test results for Retest 1 for each test account are shown in Table 2.4.5d and Table 2.4.5e below.

Table 2.4.5d - Retest 1 Results by Test Account

Test Number Table 1	Completed By	L&S Signed Date	L&S Signed Date	L&S Signed Date	Test To Be Signed Date	Test Calls		Dates of L&S When Signed First & Last Received				Dates When First Received an L&S File	
						Scale	End	First L&S	Last L&S	First L&S	Last L&S	Received	Actual
TR-01	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/20/02	3/20/02	N/A	N/A	3/14/02	3/14/02
TR-02	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/20/02	3/20/02	N/A	N/A	3/14/02	3/14/02
TR-03	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	N/A	N/A	3/14/02	3/14/02
TR-04	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/20/02	3/20/02	N/A	N/A	3/14/02	3/14/02
TR-05	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/20/02	3/20/02	N/A	N/A	3/14/02	3/14/02
TR-06	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-07	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-08	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-09	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-10	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-11	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-12	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-13	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-14	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/21/02	3/21/02	3/21/02	3/21/02	3/14/02	3/14/02
TR-15	Revised	3/8/02	3/13/02	3/14/02	3/14/02	3/13/02	3/17/02	3/22/02	3/22/02	3/22/02	3/22/02	3/14/02	3/14/02

*Note 1 - Test Number reference maintained from Initial Test.

Table 2.4.5e - Retest 1 Results by Test Account

Test Number Table 1	Completed By	Test Call Analysis						% of Success
		Calls Made	No. Calls Expected	Calls Received	Calls Received	L&S Expected	L&S Received	
TR-01	Revised	25	11	14	14	0	0	100%
TR-02	Revised	20	2	18	18	0	0	100%
TR-03	Revised	19	2	17	17	0	0	100%
TR-04	Revised	20	3	17	17	0	0	100%
TR-05	Revised	19	2	17	17	0	0	100%
TR-06	Revised	71	5	25	17	45	40	81%
TR-07	Revised	79	4	28	19	51	46	82%
TR-08	Revised	51	1	29	20	26	24	80%
TR-09	Revised	78	4	25	17	53	48	83%
TR-10	Revised	73	4	29	20	45	38	78%
TR-11	Revised	100	8	44	23	54	49	73%
TR-12	Revised	71	5	25	17	45	39	80%

Calls Made	71%
Calls Received	81%
L&S Expected	81%
L&S Received	78%
% of Success	80%

Total:	401	31	200	130	110	200	180	80%
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*Note 1 - Test Number reference maintained from Initial Test.

Test results for Retest 2 for each test account are shown in Table 2.4.5f below. For Retest 2, only test calls were made. No account migrations were required.

Table 2.4.5f - Retest 2 Results by Test Account

Test Number	Connected To	Test Calls		Dates of DUF Records When Usage First & Last Received				Dates Usage First Received to DUF Plan	
		Begin	End	First ODUF	Last ODUF	First ADUF	Last ADUF	Expected	Actual
TN03	UNE	4/2/02	4/2/02	4/3/02	4/4/02	4/3/02	4/3/02	4/3/02	4/3/02
TN04	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02
TN09	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02
TN11	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02
TN12	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02
TN16	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02
TN17	UNE	4/2/02	4/2/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02	4/3/02

*Note 1 - Test Number reference maintained from Initial Test.

		Test Call Analysis						% of Success
		Calls Made	No ODUF Expected	ODUF Expected	ODUF Failed	ADUF Expected	ADUF Failed	
TN03	UNE	8	0	5	5	3	3	100%
TN04	UNE	4	0	2	2	2	2	100%
TN09	UNE	6	0	4	4	2	1	83%
TN11	UNE	4	0	2	2	2	1	75%
TN12	UNE	4	0	2	2	2	1	75%
TN16	UNE	4	0	2	2	2	2	100%
TN17	UNE	4	0	2	2	2	1	75%
Totals		34	0	27	27	15	10	89%

ODUF Success	89%
ADUF Success	73%

Overall Success	89%
UNE Success	89%

Retest Findings:

- CGE&Y retested AZIWO2127 and did not receive 35 ADUF records for calls terminating to a UNE-P account from an IntraLATA Qwest payphone. Because these same records were identified in AZIWO2129 this issue was included in the results for AZIWO2129, and AZIWO2127 was closed.
- CGE&Y retested AZIWO2128 for WATS DUF records not received. All 31 WATS call records expected were received. AZIWO2128 was closed.
- CGE&Y retested AZIWO2129 because a lower than expected volume of DUF records were received. The overall success rate for DUF records received was 82%; 75% for ODUF records and 89% for ADUF records during the retest. In confidential DRs 276

and 277 Qwest reported system fixes to address the DUF records that were not received. CGE&Y's evaluation of Qwest system fixes during Retest 2 consisted of issuing test calls on UNE-P lines. CGE&Y received all ODUF records as expected and all ADUF records for which Qwest had received an access record.

- No DUF records were received for calls placed on or prior to the SOC when the account was still retail, as expected.
- All DUF files had unique invoice sequence numbers, as expected.
- CGE&Y retested AZIWO1215 because an inaccurate Indicator 4 value was received. All 37 ODUF records for two UNE-P test accounts were received six days after posting to billing with an incorrect value of 6 (Resale). ADUF records were received for these same two accounts five days after the ODUF records with a correct Indicator 4 value of 7 (UNE-P). CGE&Y evaluation of the March 22, 2002 process change during Retest 2 consisted of reviewing Qwest production data for 1127 DUF records associated with 17 unique telephone numbers installed as Resale and UNE-P on 4-1-02 and 4-2-02. All DUF records reflected the correct Indicator 4 value showing that the process change implemented worked as expected.
- All DUF records received for the test accounts during the test period were validated as generated by the test account.
- DUF records had accurate start and end times compared to the call logs.
- During Retest 1 it was found that 93% of the DUF records received had the correct Indicator 4 value. In the evaluation of Retest 2 records 100% of the DUF records had the correct Indicator 4 value.

Exit Criteria

Per Section 3.8.4 of the TSD, prior to exiting the Billing Functionality Test, the following criteria were met:

Criterion	Completed
The capture and documentation of billing information provided on the wholesale bills to the Pseudo-CLEC by the TA	✓
The evaluation of the paper and electronic copies of the monthly bills for a minimum two-month time period and the electronic copies of the daily usage file on a weekly basis by the TA	✓
The TA's documentation and analysis of the information provided by the Pseudo-CLEC and /or CLEC's billing data	✓
Closure of all outstanding issues logged in the TA Master Issues Log (see Appendix J for the Master Issues Log Process)	✓
Closure of all issues deemed by the TAG to require Qwest system corrections as documented on Incident Work Orders and processed in accordance with the Testing Incidents Process (Appendix I [TSD])	✓
The results of the bill validation are documented in the final report to the ACC	✓

Conclusions

CGE&Y concludes the following concerning the Qwest OSS, specifically related to the test of the billing system. The billing system always generated a bill for all billable items that were included on the Qwest CSR. The order process between provisioning and billing works as expected. Order items that appeared to be provisioned to the account and customer billable were always on the invoice. There were no major issues related to the Qwest billing system for the Pseudo-CLEC.

CGE&Y observed that when billing issues were referred to Qwest the problem was corrected by system updates and adjustments given as illustrated by AZIWO1158. CGE&Y also notes that system enhancements were made to the Qwest billing system as a result of the Functionality Test as illustrated by AZIWO1154. Qwest was able to

identify other improvements that were incorporated into their internal processes.

CGE&Y concludes the following regarding the generation of DUF records. Usage records were generated to the new co-provider beginning with usage occurring the day after the conversion date, as expected. The accuracy of the Indicator 4 value improved from 73% in the initial test to 93% in Retest 1 and to 100% in Retest 2. Qwest implemented system fixes to resolve processing errors that prevented switched access call records from being reported on the ADUFs. After Retest 2, CGE&Y received 100% of ADUF records for which Qwest had received an access record from the Inter-Exchange carrier and 100% of expected ODUF records.

Question:

In Minnesota, CLECs questioned whether the installation quality measurements actually capture all measures of quality. CLECs question whether the PID will show no trouble found in provisioning service when Qwest provisioned some, but not all, of the service correctly. For example, if a CLEC orders 5 lines and 4 were provisioned correctly, will the PID show 100% satisfaction?

Answer:

Summary

The OP-5 PID, "New Service Installation Quality," captures installation quality consistent with the defined methodology. However, this methodology has known limitations that overstate errors and understate service quality. Reported results reflect this downward bias. Based on recent inquiries, Qwest has examined a new issue: treatment of trouble related to LSR/SO mismatches, which is not currently captured in OP-5. Data indicates that this situation is rare and does not distort OP-5 results, particularly when set against other elements which bias those results downward. Qwest will track the number of LSR/SO mismatches going forward pending a determination in the Long Term PID Administration forum as to whether the OP-5 PID should be modified or a new PID should be created. However, such future PID refinements are not inconsistent with a conclusion that current OP-5 measurements are probative of Qwest's installation quality performance.

Background and Context

OP-5, "New Service Installation Quality," was developed through extensive discussion during the ROC and Arizona workshops. The measurement was also addressed during TAG meetings and the Liberty Consulting Audit. The parties specifically discussed concepts about ordering and installation quality, reaching consensus on an OP-5 definition that captures all such situations that generate trouble reports (received within 30 calendar days following installation of inward lines), whether triggered by ordering issues or by installation errors. Liberty Consulting later reviewed Qwest's implementation of OP-5 and ultimately found it to generate accurate and reliable results.¹⁸

Although OP-5 successfully measures key installation quality parameters, the agreed upon definitions have inherent limitations that are well known. These limitations bias OP-5 to overstate errors and understate actual service quality. Liberty Consulting described these limitations in its Performance Measurements Audit Report ("PMA Report"), as follows:

¹⁸ *Liberty Consulting's Final PMA Report* p. 66, ¶ 4(d) (Sept. 25, 2001) (hereinafter "PMA Report").

1. **“The number of trouble reports used in this measure is reported on a per-line basis, while the number of orders used in the measure is reported on a per-order basis.”¹⁹**

Explanation: The denominator of OP-5 consists of the average number of orders for inward line activity installed in the current and previous month²⁰ – each of such orders can involve multiple lines – whereas trouble reports counted in the numerator of OP-5 are counted on the basis of trouble tickets that are submitted on a per-line or service basis. As a result, the OP-5 performance can be consistently understated when compared to the numerator for this measure.

2. **“[A] single installation order could involve multiple lines or circuits, and troubles could be experienced on separate lines or circuits within the first 30 days.”²¹**

Explanation: A multiplying effect is created on top of the first point above whenever there are multiple lines or circuits per order. This increases the exposure of OP-5 results to multiples of volumes of trouble tickets, which are counted on a per-line or per-service basis, while the installation activity is counted on a per-order basis.²² To the extent these effects exist, the result is to bias the OP-5 result downward. As a result, the OP-5 performance can be consistently understated when compared to the numerator for this measure.

3. **“A single-line installation could have multiple troubles within the first 30 days, and thus bias the OP-5 result downward.”²³**

Explanation: There can be multiple trouble reports for an individual line or service in the 30 days following any installation activity. To the extent this happens, given that the measurement is to reflect the percentage of orders

¹⁹ *Id.* at p. 63, 3rd sub-paragraph, 2nd sentence.

²⁰ Per the OP-5 definition in PIDs (e.g., ROC 271 Working PID Version 5.0).

²¹ *PMA Report* at p. 63, 3rd sub-paragraph, last sentence.

²² This effect is further multiplied with DS1-level services and above (e.g., DS3), where each DS1 “line” has 24 circuits, each one of which is exposed to the possibility of separate trouble tickets.

²³ *PMA Report* at p. 63, 3rd sub-paragraph, 4th sentence.

without trouble tickets,²⁴ the result is, using Liberty's expression, "to bias the OP-5 result downward."²⁵

4. **"The number of new installations used in both the numerator and denominator of the formula for OP-5 is the average of the current and prior months' inward orders including change orders for additional lines. The number of trouble reports used in the numerator is the total of all trouble reports closed during the reporting period and that were received within 30 days of the date of original installation."**²⁶
5. Explanation: That the provisioning aspect of the measurement is limited to inward line activity (and constitutes an arithmetic average of two months' installation activity), while the repair aspect of the measurement includes all trouble tickets within 30 days of an installation (from only the current month), means that trouble tickets counted in the numerator and the orders counted in both the denominator and the numerator are not linked. Accordingly, the approved OP-5 PID does not call for such linkage. As a result, while the denominator of order volumes is limited to inward line activity, the trouble tickets counted in the numerator are not so limited.²⁷ This situation, again, biases the OP-5 result downward.

As noted, all of these items bias OP-5 results downward, which constitutes an *understating* of Qwest's OP-5 new service installation quality. In their comments on Liberty's PMA Report, neither AT&T, WorldCom or Covad said anything about these four points.

Ordering Accuracy

With respect to the question of ordering accuracy, when a CLEC experiences a problem with a service or feature related to an LSR with inward line activity within 30 days of installation, it may report the problem to Qwest via one of two call centers (Repair Call Handling Centers (RCHCs) or Interconnect Service Center (ISC)), by facsimile, or via one of two electronic interfaces (CEMR or EB-TA). If the problem is reported through one of Qwest's repair portals (RCHC,

²⁴ *Id.* at p. 63, ¶2, 1st sentence.

²⁵ While this phenomenon is captured by the MR-7 Repeat Trouble Rate measurement, the ROC collaborative did not agree to exclude it from the OP-5 measurement.

²⁶ *PMA Report* at p. 63, 2nd sub-paragraph, 2nd & 3rd sentences.

²⁷ Trouble tickets have coding that indicates whether they have occurred within 30 days of service installation, but no indication as to whether the installation activity was for inward lines or not. As a result, trouble tickets for feature-only orders, PIC changes, etc., are included in the numerator, while the corresponding orders are, per the PID, excluded.

CEMR, EB-TA, or fax), the repair process calls for attempting to determine if the customer record indicates that the customer has ordered the line or feature that is in "trouble." If the line or feature is on the customer record, the report is processed through Qwest's repair processes and, if the trouble is subsequently found to be in the Qwest network, the trouble is repaired. The trouble ticket thus generated counts in the OP-5 PID results.

However, in the infrequent event that a line or feature reported with a problem is not indicated on the customer record (i.e., either the customer has not ordered it or there was a LSR/Service Order mismatch), then the report is passed, via warm transfer, to the Interconnect Service Center (ISC). If the ISC then determines there was a LSR/Service Order mismatch, it issues a Service Order to correct the problem, but no trouble ticket is generated. Thus, the OP-5 measurement does not capture it.

Qwest has conducted an analysis of the frequency of the situation identified above. On June 27, 2002, Qwest initiated a process to track LSR/SO mismatches in a tracking database used by ISC representatives. This database provides the number of LSR/SO mismatch occurrences on a daily basis in an aggregated format. In order to develop a LSR/SO mismatch rate, Qwest obtained the total daily order volume associated with inward line activity. This number is representative of the OP-5 PID denominator – volumes of orders.

In order to obtain a sense of the magnitude of the issue, Qwest analyzed all orders from June 28 through July 3 to determine the volume of the LSR/Order mismatch situations as a percentage of all orders qualified for measurement by OP-5. The preliminary result was 0.63% overall and ranged by day between 0.24% and 1.05%. (This represents 68 LSR/SO mismatches in a universe of 12,171 completed LSRs.) If these were included in OP-5 as though trouble tickets had been submitted, their impact on OP-5 results would be insignificant particularly in comparison to the opposite effects from the *understating* of new service quality caused by the above-described OP-5 limitations.

Reporting of Ordering Accuracy

Going forward, to assure all involved that this issue is *de minimus*, Qwest will report, alongside its OP-5 results, the number of LSR/Order mismatch situations, corresponding to the percentages reported above. This will occur on a monthly basis until such time as the Long Term PID Administration forum determines whether a PID should be used to monitor this issue. In addition, Qwest has developed PO-20, in order to address dimensions of service order quality that may affect intervals and commitments met actually delivered to CLECs or the accuracy of measuring such intervals and commitments met.